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SOUTHERN BLIGHT OF AJUGA

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Bugleweed (Ajuga reptans L.) is a popular bedding plant or ground cover in the South. Unfortunately, plantings of this ornamental are frequently devastated by the fungus Sclerotium rolfsii Sacc. (perfect state Athelia [Corticium] rolfsii (Curzi) Tu and Kimbrough). During warm humid periods, large areas of bugleweed may be killed. The disease was first reported in Florida in 1892 by Rolfs as a serious tomato blight. The fungus was later described by Saccardo in 1911 based upon material collected by Rolfs (1). The fungus has a vast host range, attacking over 500 plant species in nearly 100 plant families (1). The disease is so prevalent in the South that it has been assigned the name Southern Blight.

SYMPTOMS. Infection usually occurs at the soil line, extends a few centimeters above and below, and causes a stem or crown rot. White fanlike mycelium grows over the plant surface and produces tan sclerotia about the size and color of mustard seeds (Fig. 1). These sclerotia can persist on crop residue and weed hosts and are disseminated by wind and water and by cultural practices. Because the sclerotia require good aeration to germinate, sandy soils favor disease development (7). High temperatures (25-35 C), low pH (3-6), and high humidity stimulate mycelial growth on the host (6). The fungus is capable of saprophytic growth and may spread rapidly on the soil surface even without the presence of a susceptible host (3). The basidial state is generally considered to have a minor role in disease initiation; however, infection by basidiospores of S. rolfsii. has been demonstrated on turfgrass (5).

Fig. 1. Southern blight, showing characteristic fanlike mycelium and tan sclerotia.

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CONTROL. In most situations, control must be based upon cultural practices. These include:

1. Removal of infected hosts.
2. Deep plowing to bury sclerotia.
3. Planting disease-free seed.
4. Planting resistant hosts.
5. Planting in a soil with a pH of 6.5 to 7.0.

Chemical control consists of soil treatment with a fumigant such as methyl bromide or Vorlex (2). PCNB has provided excellent control on bugleweed in experimental tests (4).

SURVEY AND DETECTION. Look for white, fanlike mycelium producing tan sclerotia.

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